

ABSTRACT OF THE DISCLOSURE

A linking list transmit queue system includes a queue, packet buffer and buffer tag with one-to-one mapping between them. The packet buffer stores packet data, the buffer tag stores packet data length and the queue stores a linking list of addresses corresponding to the packet data in the order in which the packet data was received from a transmitting network node. The system transmits the stored packet data in the order it was received from the transmitting network node to a destination network node.